Statement of Work for Simulation Display

I. Scope of Work

a. Background

NASA's simulation branch is seeking potential sources capable of modernizing and enhancing its display capabilities for its fixed-based simulators. We specifically seek two distinct display systems. In one laboratory a wide field-of-view projection system is sought, specifically a dome-style projection screen of approximately 8 foot radius. In another laboratory we seek a framed 9-by-28 foot display.

The subsystems sought encompasses the display screens, the projection systems, and the supporting image generator.

b. Objectives

The objective is to design and install these visual systems into a facility with access and height restrictions. Physical constraints include 10-foot ceilings and physical modularity sufficient to enable the use of an elevator while moving equipment to the second-floor simulation laboratory. Building doors on first floor are all 6' x 7' entries. The freight elevator has a 6' wide by 7' tall entry door with 106" W x 86" D floor space and an 8' ceiling. All laboratories on the second floor of the building have 6' x 7' entries.

Interested bidders will be invited to the facility to conduct a site survey and will be encouraged to ask questions prior to proposal submission. It is mandatory that interested bidders attend the scheduled site visit. A date will be provided for the site visit along with instructions to submit personnel who will attend. There will be a limit of three representatives per vendor. Bids from vendors who do not attend the site visit will be disqualified.

II. Applicable Document

All IT Systems sold in the United States receive their final assembly and test in the USA. Certified Documentation is required per Consolidated and Further Continuing Appropriations Act, 2013 H.R. 933-76, SEC. 516 and H.R. 933-80 SEC. 535.

III. Technical Point of Contacts

N/A

IV. Specific Task Requirements

Potential bidders shall notify InuTeq of their intent to bid on the project on or before September 8, 2015. A tour of the facility is scheduled to be conducted on September 16, 2015 at 10:00am. Proposals will be due on September 25, 2015.

The scope of work consists of two systems:

1. The visual dome system consisting of 8' Radius Direct Projected Spherical Screen with 200-210 degrees horizontal field and 45-50 degrees vertical field of view, Real-time OTW Image Generator, and a 3 projector DLP based projection system.
    - Fixed based Spherical Dome Display screen with 200 deg min horizontal FOW and 45 deg. FOW vertical.
    - (3) 2560x1600 LED Projectors 700 lumens minimum ea.
    - (3) Projector mounts or projector mounting structure, to attach to ceiling.
    - Optical blending for edge blend and warp
    - Image Generator consisting of hardware and software necessary to drive a 3 channel system with an OTW scene in real-time and interface with our in-house simulator software. Must include World-wide terrain database, min 10 airport databases, and ability to import custom 3d models.
    - The dome structure shall be mechanically compatible with the profile of the cockpits, including allowing the cockpit to freely roll in and out of the structure.
    - The dome structure shall be installed on raised computer flooring with 2 feet square tiles.
    - The floor loading on any tile shall not exceed 600 lbs.
    - The dome structure shall be designed so as to enable the pilot to safely ingress and egress the cockpit unassisted, including when enclosed in the visual system, in one minute or less.
    - The dome structure shall provide minimal exposure to hazardous conditions such as head impact and sharp edges and corners.
2. A wall and ceiling mounted visual display system consisting of 9' x 28' Wall mounted screen with high resolution 3 projector DLP based projection system with edge blend capability.
    - (3) 2560x1600 DLP Projectors 2500 lumens minimum ea.
    - (3) Image processors capable of edge blend and warp
    - (3) ceiling mounts
    - 9' x 28' projection screen and associated frame with mounts

All electrical equipment proposed shall be rated for 120 volts.

The successful bidder will work with NASA on a mutually acceptable project plan and shall arrange for delivery and installation of the display systems. On site assembly, installation, alignment and calibration will be required for these visual systems. Documentation including list of materials, user's manuals, drawings, and specifications are required. System training shall be provided by the vendor immediately following installation.

V. Period of Performance

Delivery of the visual systems to onsite receiving dock must be completed no longer than 90 days after PO award.

Accelerated delivery of the items required herein is acceptable and desirable at no additional cost to InuTeq, LLC. Seller must notify InuTeq, LLC seven days prior to the accelerated delivery date to obtain approval for delivery.

VI. Deliverables

- Deliver Acceptance Test Procedures
    - Delivery of draft acceptance test procedures is due NLT 45 days after PO Award
    - The acceptance test procedures shall outline a nominal schedule relative to arrival of hardware on receiving dock.
    - Installation and completion of the final acceptance testing shall be conducted in accordance with the agreed-to acceptance test procedures.
- Deliver Hardware
    - Delivery of the hardware to onsite receiving dock must be completed no longer than 90 days after PO award.
- Deliver installation support and familiarization training IAW ATP
- Deliver Final Acceptance Certificate
- Delivery documentation including list of materials, user's manuals, drawings, and specifications.

VII. Acceptance Criteria

Formal acceptance of the equipment and other deliverables performed by the offeror shall be as follows:

- The Seller shall provide to the Buyer a draft Acceptance Test Procedures (ATP) which will ensure effective System testing to the agreed specification.
- The draft ATP will be submitted for review by the Buyer who may propose modifications or additional tests relating to the simulator's specific mission.
- All changes to the draft ATP, and their individual applicability to formal Acceptance, must be agreed by the Seller, whose consideration shall be reasonable, and agreement not unreasonably withheld.
- Acceptance by the Buyer of the Seller's System, Equipment, or Services shall be made immediately following first installation by the Seller, and subsequent stand-alone testing,

or on delivery by the Seller if no installation is contracted, at the place specified in the Quotation.

- The Buyer shall provide to the Seller adequate time, facilities, and resources to resolve any ATP failures, and shall not unreasonably withhold Acceptance.
- Acceptance shall be deemed to be successfully achieved if all Equipment and/or Services have been delivered and, if appropriate, installed, and tested in accordance with the agreed ATP, and are clear of test failures.
- Acceptance shall be signified by completion of a Final Acceptance Certificate.

VIII. Contractor/Government Furnished Property/Government Furnished Equipment

- GFP/GFE will not be provided.

IX. Special Considerations

- Site Survey: Interested bidders will be invited to the facility to conduct a site survey and will be encouraged to ask questions prior to proposal submission. It is mandatory that interested bidders attend the scheduled site visit. A date will be provided for the site visit along with instructions to submit personnel who will attend (see section IV). There will be a limit of three representatives per vendor. Bids from vendors who do not attend the site visit will be disqualified.

X. Security Requirements

- All IT Systems sold in the United States will receive their final assembly and test in the USA. Certified Documentation is required per Consolidated and Further Continuing Appropriations Act, 2013 H.R. 933-76, SEC. 516 and H.R. 933-80 SEC. 535.
- All personnel traveling to NASA Armstrong Flight Research Center located on Edwards Air Force Base for site survey, installation, testing, and training shall be U.S. Citizens badged in accordance with NASA procedures.